

LISTING OF THE CLAIMS:

Claims 1-29 (cancelled).

30. (Currently Amended) A component according to claim 27 53, wherein the chip is fashioned on a piezoelectric substrate to form a component selected from a group consisting of SAW components, FBAR resonator, BAW resonator and SCF filter.

Claim 31 (cancelled).

32. (Currently Amended) A component according to claim 34 53, wherein the frame is formed from a material selected from plastic or metallization on one of the surfaces of the chip and carrier substrate or is the boundary of a depression provided on the surface of the carrier substrate, said depression having a depth which corresponds at least to the height of the component structure arranged in the hollow.

33. (Currently Amended) A component according to claim 34 56, wherein the frame is fashioned as a metallization on the surface of the carrier substrate and is arranged circumferentially along and underneath the chip edge facing the carrier substrate and in that the boundary surface between the frame and chip is circumferentially sealed with a closed solder border.

34. (Currently Amended) A component according to claim 27 53, wherein the carrier substrate is a multi-layer carrier substrate having at least two layers with a lower layer being provided with feedthroughs that are filled with a conductive material, the surface of the feedthroughs forming the connection area of the substrate.

35. (Currently Amended) A component according to claim 27 53, wherein the carrier substrate is a low-warpage LTCC ceramic.

36. (Currently Amended) A component according to claim 27 53, wherein the carrier substrate is a multi-layer substrate having at least two layers, said metallized contacts being provided on the underside of a lower layer of the multi-layer carrier substrate and being connected by feedthroughs with the wiring arranged between the two layers of the

at least two-layer carrier substrate, with the wirings being selected as the connection areas or being connected to the connection areas.

37. (Currently Amended) A component according to claim 27 ~~53~~, wherein the chip is metallized at least in the region of its lower edge and the carrier substrate is metallized at least on a band below the lower edge of the chip, whereby the metallization comprises at least one of the metals selected from a group consisting of Al, Ni, Cu, Pt and Au.

38. (Currently Amended) A component ~~according to claim 27, wherein~~ comprising a chip having component structures, said chip comprising, on one surface, solderable metallizations connected with the component structures, a carrier substrate having, on a lower surface, contacts for electrically conductive connection with the component structures of the chip, conductor traces extending from the contact to connection areas, wherein the connection areas are respectively at least partially uncovered on a floor of recesses in the carrier substrate, said chip being mounted in a flip-chip arrangement by means of bump connections arranged in the recesses, said bump connections electrically-conductively connecting the solderable metallizations of the chip to the connection areas of the carrier substrate, so that the chip at least partially rests on the carrier substrate, the chip, on a back side, has having a lacquer layer selectively removed to generate an inscription for the chip.

39. (Previously Presented) A component according to claim 38, wherein additional layers forming an optical contrast with the lacquer layer are provided under the lacquer layer of the chip.

40. (Currently Amended) A component ~~according to claim 27, wherein~~ comprising a chip having component structures and outer edges, said chip comprising, on one surface, solderable metallizations connected with the component structures, a carrier substrate having, on a lower surface, contacts for electrically conductive connection with the component structures of the chip, conductor traces extending from the contact to connection areas, wherein the connection areas are respectively at least partially uncovered on a floor of recesses in the carrier substrate, said chip being mounted in a flip-chip arrangement by means

of bump connections arranged in the recesses, said bump connections electrically-conductively connecting the solderable metallizations of the chip to the connection areas of the carrier substrate, so that the chip at least partially rests on the carrier substrate, the outer edges of the chip are being canted and taper toward the carrier substrate.

41. (Currently Amended) A method for producing an encapsulated component, said method comprising the steps of providing a multi-layer carrier substrate which comprises recesses of a depth h_1 ~~in which~~ having bottoms uncovering solderable connection areas ~~are uncovered~~, providing a chip having component structures of a height h_3 on one surface as well as solderable metallizations connected with said component structures, generating a depression having a depth h_2 for acceptance of the component structure ~~of the height h_3~~ on one of the surface of the chip and the carrier structure, creating solder bumps on one of the solderable connection areas and solderable metallizations having a height h_4 , whereby $h_4 > (h_1 + h_2)$, attaching the chip to the carrier substrate with a flip-chip arrangement by melting the soldered bumps so that the solder connection areas are connected via the solder bumps with the solderable metallization and upon a mutual shrinking of the solder bumps conditional upon melting, ~~the chip height h_4~~ height h_4 of the solder bumps drops to $(h_1 + h_2)$ and said chip drops on the carrier substrate and rests there, whereby the component structures are arranged in a hollow of the height h_2 formed by the depression and are covered by the chip and carrier substrate.

42. (Previously Presented) A method according to claim 41, wherein the first contact metallizations are created on the carrier substrate in the region below the lower chip edge, the second contact metallizations being generated on the chip in the region between the contact barrier and the facing chip area, and a solder border circling the chip being created for connection of the first and second contact metallizations.

43. (Previously Presented) A method according to claim 41, wherein the chip narrowing toward the surface with the contact structures with canted side edges is used, the solder border being generated on the carrier substrate before the attachment of the chip in that soldering the side edges of the chip are attached with the metallizations located there to the solder borders and are soldered therewith.

44. (Previously Presented) A method according to claim 41, wherein the step of creating the solder bumps generates the solder bumps on a solderable metallization of the chip and the solderable connection areas of the carrier substrate by a method selected from a group consisting of galvanic deposition, silk screen, stencil printing, scraping of solder paste into recesses of the carrier substrate, vibration of solder balls into the recesses of the carrier substrate, laser bumping and stamping of solder foil over the recesses.

45. (Previously Presented) A method according to claim 41, wherein the carrier substrate is a multiple carrier substrate having at least an upper layer and a lower layer, the recesses are created in the upper layer and filled with conductive material, the solderable connecting areas being a solder coating on a surface of the lower layer facing the upper layer under the recesses of the upper layer.

46. (Previously Presented) A method according to claim 45, wherein the base of the recesses is selected larger in the upper layer than the area of the solderable connection areas on the surface of the lower layer in that the cross-section of the bumps is selected smaller than those of the recesses.

47. (Previously Presented) A method according to claim 41, wherein, after the step of soldering and generating the solder border, material is removed from the back side of the chip by a method selected from particle beam removal and abrasion, so that the chip is thinned.

48. (Previously Presented) A method according to claim 41, wherein the chips are being applied to a large-area carrier substrate and are first subsequently isolated into components or modules via a division of the carrier substrate between the chips.

49. (Previously Presented) A method according to claim 48, wherein the isolation occurs via a beam method in which the solder border serves as a mask.

50. (Previously Presented) A method according to claim 41, wherein the step of providing the multi-layer carrier substrate provides a multi-layer of green ceramic, forming recesses in the upper layer of the multi-layer green ceramic, filling the recesses with a filling

material and then sintering the multi-layer green ceramic to form multi-layer sintered ceramics and then removing the filling material after sintering.

51. (Previously Presented) A method according to claim 50, wherein the step of filling the recesses and removal of the filling material again is selected from a group consisting of filling with Al_2O_3 and removing the Al_2O_3 with a beam process; filling with a PbO and removing the PbO via dissolution with an acetic acid and filling with a carbon-containing material and removing the carbon-containing material via dissolving with acetic acid.

52. (Previously Presented) A method according to claim 41, wherein the step of bonding the bumps to the solderable metallizations is improved by following a step selected from roughening the chip surface before the application of the metallizations in the region of the solderable metallizations and structured application of the metallizations so that an open band-like, grid-like or sieve-like structure of the solderable metallizations is created, in whose openings the chip is uncovered.

53. (New) A component comprising a chip having, on its surface, component structures and solderable metallizations electrically connected to the component structures; a carrier substrate having, on its bottom surface, contacts to provide an electrical connection to the component structures of the chip, said carrier substrate having contact areas and conductor traces extending from the contacts to the contact areas, said carrier substrate having a frame which encloses a depression of said carrier substrate, said depression having a floor with recesses being arranged on the floor of said depression, said recesses having bottoms at least partially uncovering the contact areas, said chip being mounted on the carrier substrate in a flip-chip arrangement by means of bumps arranged in the recesses, said bumps electrically connecting the solderable metallizations of the chip to the connection areas of the carrier substrate, said frame supporting said chip.

54. (New) A component according to claim 53, wherein the carrier substrate comprises a lower layer and an upper layer arranged on top of the lower layer, said connection areas are arranged on the surface of the lower layer, said recesses are formed by through-holes provided in said upper layer to uncover said connection areas.

55. (New) A component according to claim 54, wherein said frame is arranged on top of the upper layer.

56. (New) A component according to claim 53, wherein the contact area between said carrier substrate and said chip is circumferentially sealed with a closed solder boarder.

57. (New) A component according to claim 53, wherein a first recess is provided in an upper layer of the carrier substrate in order to form said frame.

58. (New) A component comprising a chip having, on a first surface, component structures and solderable metallizations electrically connected to the component structures, a carrier substrate comprising, on its bottom side, contacts to provide an electrical connection to the component structures of the chip, said carrier substrate further comprising contact areas and conductor traces extending from the contacts to the contact areas, said contact areas being at least partially uncovered, said carrier substrate further comprising recesses, wherein said contact areas are arranged on a floor of said recesses, wherein one of said chip and said carrier substrate is provided with a frame so that a part of said component structures is arranged in a hollow that is enclosed by said frame, chip surface and the surface of the carrier substrate facing the chip, wherein said chip is mounted on the carrier substrate in a flip-chip arrangement by means of bumps arranged in the recesses, said bumps electrically connecting the solderable metallizations of the chip to the connection areas of the carrier substrate, wherein said frame supports said chip.

59. (New) A component comprising a chip having, on a first surface, component structures and solderable metallizations electrically connected to the component structures, a carrier substrate comprising, on its bottom side, contacts to provide an electrical connection to the component structures of the chip, said carrier substrate further comprising contact areas and conductor traces extending from the contacts to the contact areas, said contact areas being at least partially uncovered, said carrier substrate further comprising recesses, wherein said contact areas are arranged on a floor of said recesses, a frame being provided between said chip and said carrier substrate so that a part of said component structures is arranged in a hollow that is enclosed by said frame, chip surface and the surface

of the carrier substrate facing the chip, said chip is mounted on the carrier substrate in a flip-chip arrangement by means of bumps arranged in the recesses, said bumps electrically connecting the solderable metallizations of the chip to the connection areas of the carrier substrate, wherein said frame supports said chip.